

- (F) Watery.
- (iii) Hypocotyl:
  - (A) Deep open cracks.
  - (B) [Reserved]
- (iv) Root:
  - (A) No primary root.
  - (B) Stubby primary root with weak secondary roots.
- (v) Seedling:
  - (A) One or more essential structures impaired as a result of decay from primary infection.
  - (B) Albino.
- (b) Chives, leek, onion, Welsh onion.
- (1) General description.
- (i) Germination habit: Epigeal monocot.
- (ii) Food reserves: Endosperm which is hard, semi-transparent, and non-starchy; minor reserves in the cotyledon.
- (iii) Cotyledon: A single cylindrical cotyledon. The cotyledon emerges with the seed coat and endosperm attached to the tip. A sharp bend known as the "knee" forms; continued elongation of the cotyledon on each side of this knee pushes it above the soil surface. The cotyledon tip is pulled from the soil and straightens except for a slight kink which remains at the site of the knee.
- (iv) Shoot system: The first foliage leaf emerges through a slit near the base of the cotyledon, but this does not usually occur during the test period. The hypocotyl is a very short transitional zone between the primary root and the cotyledon, and is not distinguishable for purposes of seedling evaluation.
- (v) Root system: A long slender primary root with adventitious roots developing from the hypocotyl. The primary root does not develop secondary roots.
- (2) Abnormal seedling description.
  - (i) Cotyledon:
    - (A) Short and thick.
    - (B) Without a definite bend or "knee".
    - (C) Spindly or watery.
  - (ii) Epicotyl:
    - (A) Not observed during the test period.
    - (B) [Reserved]
  - (iii) Hypocotyl:
    - (A) Not evaluated.
    - (B) [Reserved]

- (iv) Root:
  - (A) No primary root.
  - (B) Short, weak, or stubby primary root.
- (v) Seedling:
  - (A) One or more essential structures impaired as a result of decay from primary infection.
  - (B) Albino.

[59 FR 64504, Dec. 14, 1994]

**§ 201.56-8 Flax family, Linaceae.**

Kind of seed: Flax.

(a) General description.

(1) Germination habit: Epigeal dicot. (Due to the mucilaginous nature of the seed coat, seedlings germinated on blotters may adhere to the blotter and appear to be negatively geotropic.)

(2) Food reserves: Cotyledons which expand and become photosynthetic.

(3) Shoot system: The hypocotyl elongates carrying the cotyledons above the soil surface. The epicotyl usually does not show any development within the test period.

(4) Root system: A primary root, with secondary roots usually developing within the test period.

(b) Abnormal seedling description.

(1) Cotyledons:

(i) Less than half of the original cotyledon tissue remaining attached.

(ii) Less than half of the original cotyledon tissue free of necrosis or decay.

(2) Epicotyl:

(i) Missing. (May be assumed to be present if cotyledons are intact.)

(ii) [Reserved]

(3) Hypocotyl:

(i) Deep open cracks extending into the conducting tissue.

(ii) Malformed, such as markedly shortened, curled, or thickened.

(4) Root:

(i) None.

(ii) Weak, stubby, or missing primary root with weak secondary or adventitious roots.

(5) Seedling:

(i) One or more essential structures impaired as a result of decay from primary infection.

(ii) Albino.

[59 FR 64505 Dec. 14, 1994]